

February 11, 2019

Joe Wallace  
USEPA Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

**Re: Midnite Mine Monthly Report – January 2019; Midnite Mine Superfund Site, Spokane Indian Reservation, WA, RD/RA Consent Decree, No. CV-05-020-JLQ**

Dear Mr. Wallace:

In accordance with the RD/RA Consent Decree (CD) for the Midnite Mine, the following presents the Monthly Report for January 2019. The requirements for the Monthly Report as specified in the CD and the associated Statement of Work (SOW) are quoted, followed by the required information:

*a) Describe the actions which have been taken toward achieving compliance with this Consent Decree during the prior month:*

- Interim Water Treatment Plant and Surface Water Collection System Operation
  - The WTP closed down operations on November 9, 2018 for the season. WTP operation will recommence in the Spring 2019. The surface water collection system continued to operate as usual.
- Phase I RD/RA OM&M Plan (including QAPP, HASP)
  - Revision 3 of the Operation, Maintenance and Monitoring (OM&M) Plan was submitted to EPA on January 31, 2014, and incorporates the addition of the Filter Press to the water treatment plant. Comments were received from EPA on May 20, 2014. A revised OM&M Plan and Response to EPA comments was submitted on June 20, 2014.
- Sitewide Monitoring Plan (SMP)
  - Surface water samples were collected for the second half of 2018 on September 24-27, 2018. Second half 2018 groundwater samples were collected in October and November. The annual sediment samples were collected November 1 and 14, 2018. The SMP data transmittal for the second half of 2018 will be submitted within 30 days of receipt of the final laboratory report.
- Residuals Management Plan (RMP) / Sludge Management
  - The updated RMP, Revision 15, was submitted on March 21, 2017. EPA approved this revision on March 21, 2017. On January 9, 2019 a letter notifying EPA that an annual review of the RMP was conducted and it was determined that the current RMP remains appropriate for 2019. Water treatment plant residuals will continue to be managed and shipped for off-site processing at the Energy Fuels White Mesa Mill as documented in

the March 21, 2017, Revision 15, RMP. Therefore, the RMP will not be changed at this time.

- On May 20, 2014, Revised SOPs for managing residuals at the WTP were submitted to EPA. Comments were received from EPA on June 12, 2014. Responses to comments and revised SOPs were submitted on June 30, 2014.
- In accordance with the RMP, notification was submitted to EPA on November 16, 2018 that shipment of sludge to the Energy Fuels Facility would continue. On November 21 EPA provided notice that the Energy Fuels facility continues to be acceptable to receive sludge pursuant with the Off-Site Rule. EPA will be notified every 60 days of the intentions to ship sludge so that the Off-Site Rule notification can occur as required.
- As the WTP was not in operation, sludge was not shipped during January.

- Pre-Design Data Needs Report

The following summarizes the open and on-going items related to the Pre-Design Data Needs:

- A Rhoads Borrow Area Plan of Operations was submitted to the Tribe on October 9, 2012. Comments were received from the Tribe on August 26, 2013. Responses to these comments were submitted to the Tribe on September 6, 2013. A Revised Plan of Operations (POO) was submitted to the Tribe on November 12, 2013. On February 24, a resolution from the Spokane Tribal Council was received authorizing use of the Rhoads property with conditions. Additional modifications to the POO including an updated cost estimate were submitted to the Tribe.
- On July 30, 2014, DMC was granted an Administrative Conditional Use Permit (ACUP) with a final decision and determination of non-significance from Stevens County to develop the Rhoads Borrow Area.
- Additional permits from the State of Washington will be required prior to the development of the resources. The first use of borrow material from the Rhoads Borrow Area is scheduled for the summer of 2021. It is anticipated that application for the remaining permits will be submitted before December 2020. These permits include:
  - Forest Practices Act Permit – WA State DNR
  - Mine Reclamation Permit – WA State DNR
  - Storm Water NPDES – EPA
  - 401 Certification – Tribe
- As EPA requested, Midnite Mine Western Drainage Alluvial wells pumping rates, water levels, and the updated version of Figure 1 from the testing plan is included in the monthly report as Attachment 1.
- The fieldwork for Phase I of the Work Plan for Whitetail Creek Sediment Evaluation was completed on August 23, 2013, and the Phase I Data Transmittal Report providing the results and proposed Phase II sampling was submitted on September 6, 2013. Additional information was provided on September 18, 24, and 27th. Upon discussion

of the results with EPA, EPA requested that the scope of work for the Phase II investigations be modified from the Work Plan. EPA provided written comments on September 30, 2013. Additional information was provided to EPA on October 9, 2013, documenting the agreed upon modifications. The Phase II field investigation and sampling was conducted the week of October 14, 2013. The Phase I, Revision 1 Data Transmittal Report, response to EPA comments, and Phase II, Revision 0 Data Transmittal Report were submitted to EPA February 20, 2014. EPA provided comments on the Phase II Report on May 19, 2014. A Revised Phase II report and response to comments was submitted to EPA on June 18, 2014. EPA provided another set of comments on July 24, 2014. A Response to Comments and Revised Phase II report was submitted to EPA on August 25, 2014.

- The final work plan to investigate the old Man Camp well as a possible water supply source was submitted on June 5, 2013. On October 2 and 3, 2013 a new Water Supply Well for the Midnite Mine was located, drilled and completed for possible use as a potable water supply during remedy implementation. The well was developed on October 4, 2013 using air lift for 3 hours. The well produced 4 to 5 gpm during the entire development process without going dry. The pumping tests and water quality analyses were initiated May 20, 2014, and final laboratory data were received in August 2014. The data evaluation report was submitted to EPA on November 21, 2014. It was requested by EPA on December 2 to resample the well for water quality analyses to include total metals, field parameters and general chemistry. The well was resampled on January 8, 2015, and results were received on January 28, 2015. The updated Man Camp well report with the supplemental data was submitted on February 27, 2015.
- A work plan for the installation of the additional monitoring wells requested by the Tribe in the lower portion of Blue Creek was submitted on March 3, 2014. Comments were received from EPA on April 9, 2014. A revised work plan and Response to Comments was submitted to EPA on May 9, 2014. Additional comments were received from EPA on May 16. A Revised work plan, QAPP and response to comments were submitted to EPA on May 29, 2014. EPA approved the work on May 30, 2014. The wells were installed in October. A well completion report was submitted on December 1, 2014.
- The Blue Creek and Delta Assessment Work Plan was submitted to EPA on October 3, 2011. Comments were received from EPA on June 13, 2014. A meeting was held on June 25 to discuss the work. One conclusion of that meeting was that additional work needed to be done to define or redefine the scope and objectives of the overall Blue Creek contingency as well as the assessment work plan. It was therefore decided that responding to EPA comments and updating the assessment work plan would be premature at this time. A field reconnaissance to determine the approximate location and thickness of sediments in Blue Creek occurred on March 9, 2015. A report with the results of the field reconnaissance was submitted on April 21, 2015. EPA provided comments on the reconnaissance report on June 8, 2015. Responses to those comments and a revised report were submitted on July 7, 2015. Comments on the revised report were received on August 5, 2015. A draft revised report was submitted on September 1, 2015. The final revised report was submitted on September 15, 2015 and the revision was approved by EPA on September 17, 2015.

- Fencing and Signage Plan
  - On October 8, 2018, EPA was notified that, consistent with actions in previous years, fence inspections would be discontinued beginning in November, 2018 and would recommence in April, 2019.
- Treatability Test Plan (TTP)
  - A Response to the EPA Pilot Scale Study Comments and Revised Report was submitted to EPA on March 7, 2013.
- Interim Water Treatment Plant Modification
  - On February 1, 2013, modifications were made to the previously approved filter press design to change the location of the press. On February 20, 2013, EPA conditionally approved the design of the filter press. On March 25, 2013, a response was submitted to address the conditions in the approval. On April 4, EPA commented on the radon mitigation measures for the filter press building. Responses to those comments and design modifications were submitted on April 9, 2013. On April 15, 2013, the Work Plan, Quality Assurance Plan and the Health and Safety Plan for the construction of the Filter Press were submitted. Comments on these documents were received on May 7, 2013. Revisions to address the comments were submitted on June 6. Construction of the filter press was initiated in July 2013. A pre-final inspection was conducted by EPA contractors on February 19, 2014. The filter press construction was completed in March. A site inspection was conducted by EPA contractor on May 22, 2014. A final inspection report was received on June 13, 2014. A completion report was submitted on July 11, 2014.
- EPA WQX Database
  - There were no data uploaded into the WQX Database in January.
- Remedial Design
  - A final submittal of the 100% design was submitted on October 30, 2015. EPA approved the Final 100% design on November 2, 2015.
  - The Final Remedial Action Work Plan (RAWP) was submitted on April 30, 2016. EPA approved the RAWP on May 2, 2016. The RAWP was updated to reflect the 2018 construction plan including the change in remedial action construction management. This update was completed on May 25, 2018 and EPA provided formal approval of the entire updated RAWP on May 25, 2018.
  - As approved by the EPA, the design of the WTP and discharge pipeline was held at the 60% stage pending the ongoing NPDES permitting process. The 90% design for the WTP was submitted on August 27 and the 90% design of the discharge pipeline was submitted on August 29, 2018. EPA provided comments to the 90% design documents on October 9, 2018. The 100% design for the WTP and discharge pipeline was submitted on December 4, 2018.

- An Institutional Controls and Implementation and Assurance Plan (ICIAP) was submitted to EPA on May 11, 2012. On September 30, 2013, EPA disapproved the plan and provided comments. A response to comments and revised ICIAP was submitted February 20, 2014.
- On December 10, 2014, EPA submitted a letter outlining additional requirements for determination of wetlands and waters of the US to be in substantive compliance with Section 404 of the Clean Water Act. A meeting was held with EPA on December 18, 2014 to discuss these issues. Preliminary data were submitted via e-mail to EPA to address specific issues outlined in the December 10 letter on January 26, 2015. A more detailed wetlands delineation report was submitted on February 2, 2015. Additional information on the delineation was requested on February 26 and was submitted on March 9, 2015. A conceptual wetlands mitigation plan was submitted on March 16, 2015. A site visit to review wetlands issues occurred on April 14-16, 2015. A revised wetlands delineation report incorporating information from the field trip was submitted on May 8, 2015. A meeting was held on July 16 to discuss the anticipated hydrologic conditions in the drainages and wetlands after implementation of the Remedy. EPA provided their field summary on September 18, 2015.

- Remedial Action

The Remedial Action Work Plan (RAWP) specified information that would be submitted in the monthly report relative to the Remedial Action (RA). Each of these items are addressed below.

- Progress made this month

- The RA construction activities were discontinued on November 2, 2018 for the season. Care and maintenance activities continued in January consisting of the following:
  - Storm water management;
  - Snow removal from access roads and walkways;
  - Maintenance of construction equipment;
  - Continued dewatering Pit 4 including installation of backup pumps;
  - Continued operation of the site water management system; and,
  - Standing trees were cut in select areas designated for construction in 2019.
- It was proposed on November 1 that weekly reports detailing site activities would be discontinued after the week ending November 2. EPA approved this proposal on November 1, 2018. Weekly reporting will recommence with the beginning of construction activities in the spring of 2019.

- Problems resolved last month

- There were no problems last month.

- Problem areas and recommended solutions

- None.

- Deliverables submitted last month

→ Deliverables associated with the RA in January included the following:

- A memorandum was submitted on July 24, 2018 to request an Explanation of Significant Difference (ESD) to revise the Site cleanup levels for Surface Materials. This request was based on-site cleanup experiences using the existing cleanup levels and on a reevaluation of EPA's background investigation and data that were collected for the Site. EPA provided comments to this memo on August 13. Responses to these comments were submitted on August 16. A conference call was held on August 23 to further discuss this issue. Additional information was submitted to EPA on September 5, 2018. A meeting was held to discuss this topic on October 22, 2018. Additional background information was submitted on November 13, November 26, 2018 and January 10, 2019. Monthly conference calls have been scheduled to continue discussion of this topic.
- On January 29, 2019 a letter was submitted with a proposal to move the crew lunch room facility to Area 5 to better support the 2019 construction activities.

- Air Monitoring

Air monitoring was discontinued in November and will recommence with construction activities in the spring of 2019.

- Vertical Dewatering Wells

→ There were no issues with the construction or operation of the dewatering wells.

- Alluvial Dewatering Trenches

→ There were no issues with the construction or operation of the Alluvial Dewatering Trenches as construction for these trenches has yet to begin.

- Construction Water

→ Construction water utilized during January consisted of no on-site water and 2,100 gallons of off-site water.

- Submittal Register

→ Items included in the submittal register were previously documented in the weekly reports but will be included in the monthly report until weekly reporting recommences. Submittals during January are summarized on Table 1.

**Table 1 – Submittal Register**

<b>Project Submittals</b>			
<b>Submittal No.</b>	<b>Title</b>	<b>Submittal Date</b>	<b>CQA Approval Date</b>
01018-29	East Infiltration Collector As-Built	11/16/2018  Notice to Amend and Resubmit Sent 12/10/2018 (based on emails between CQA and CQC from 12/1/2018 to 12/5/2018)	1/2/2019
01018-31	2018 End of Year Pit 4 Riser Verticality Data	1/17/2019	1/29/2019
01018-32	Pit 4 to Pit 3 Pipeline As-Built	1/17/2019	TBD

<sup>(1)</sup>A copy of the updated CQA Logs are provided on the project SharePoint site under the 2018 CQA Folder.

- Storm Water Management
  - Implementation of storm water management best management practices (BMPs) continued in January in accordance with the Storm Water Management Plan. There were no storm water issues in January.
- Schedule updates/potential schedule delays
  - An updated general schedule, Appendix X of the RAWP, was submitted and approved as part of the updated RAWP. This schedule will be updated during the winter months as necessary to reflect the remaining work necessary to complete the RA.
- Activities planned for the next month
  - Activities planned for February 2019 include the following:
    - Continue storm water management measures in accordance with the Storm Water Management Plan.
    - Continue other activities necessary for site care and maintenance during the winter shutdown.
    - Continued discussions with EPA regarding cleanup levels.
- Summary of confirmation sampling
  - There was no confirmation sampling or reporting in January.
- Key personnel changes
  - None.
- Health and safety issues
  - There were no Health and Safety issues in January.



- Coordination activities

→ Routine coordination activities between Newmont, CQA/CQC contractors, and various other contractors and EPA occurred in January.

- Estimated percent complete

An evaluation of the percent complete was conducted using the Schedule from Appendix X of the Remedial Action Work Plan which was updated and approved by EPA in April 2018. The schedule shows that the construction is anticipated to occur over an additional eight years, 2018 through 2025.

As submitted in the October 2018 Monthly Report, construction is at or ahead of the schedule presented in Appendix X and the percent complete remains at 25.5%.

- Project modifications/field adjustments/change orders

→ There were no field adjustments/change orders in January.

*b) Include a summary of all results of sampling and tests and all other data received or generated by Settling Defendants or their contractors or agents in the previous month;*

- There were 1.53 inches of precipitation recorded in January at Midnite Mine. The daily weather data output for January, which is collected on-site as part of the air monitoring system, is included in Attachment 2. Flow in the Western Drainage was approximately 45 gpm on January 1, 2019 and increased to approximately 57 gpm on January 28, 2019.

*c) Identify all plans, reports and other deliverables required by this Consent Decree completed and submitted during the previous month;*

- Submittals associated with the RA are detailed above.

*d) Describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts;*

- Work as part of the RA will continue as discussed above. Construction activities were discontinued on November 2, 2018 for the winter season.

*e) Include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the schedule for implementation of the Work, and a description of efforts made in the previous month to mitigate those delays or anticipated delays;*

- There are no unresolved delays that were encountered in January that would impact the schedule. Information regarding percent complete is presented above.

*f) Include any modifications to the work plans or other schedules that Settling Defendants have proposed to EPA or that have been approved by EPA during the previous month;*

- None.



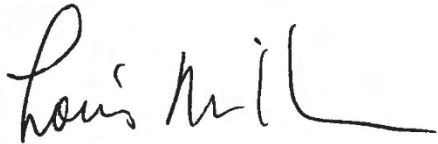
*g) Describe all activities undertaken pursuant to Paragraph 110 during the previous month and those to be undertaken in the next six weeks;*

- Mr. Ricky Sherwood, the community liaison, continued to receive notifications and updates of meetings, construction activities and major mobilization and demobilization activities.

We trust that this information satisfies the Monthly Progress Report requirements of the CD. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

WORTHINGTON MILLER ENVIRONMENTAL, LLC

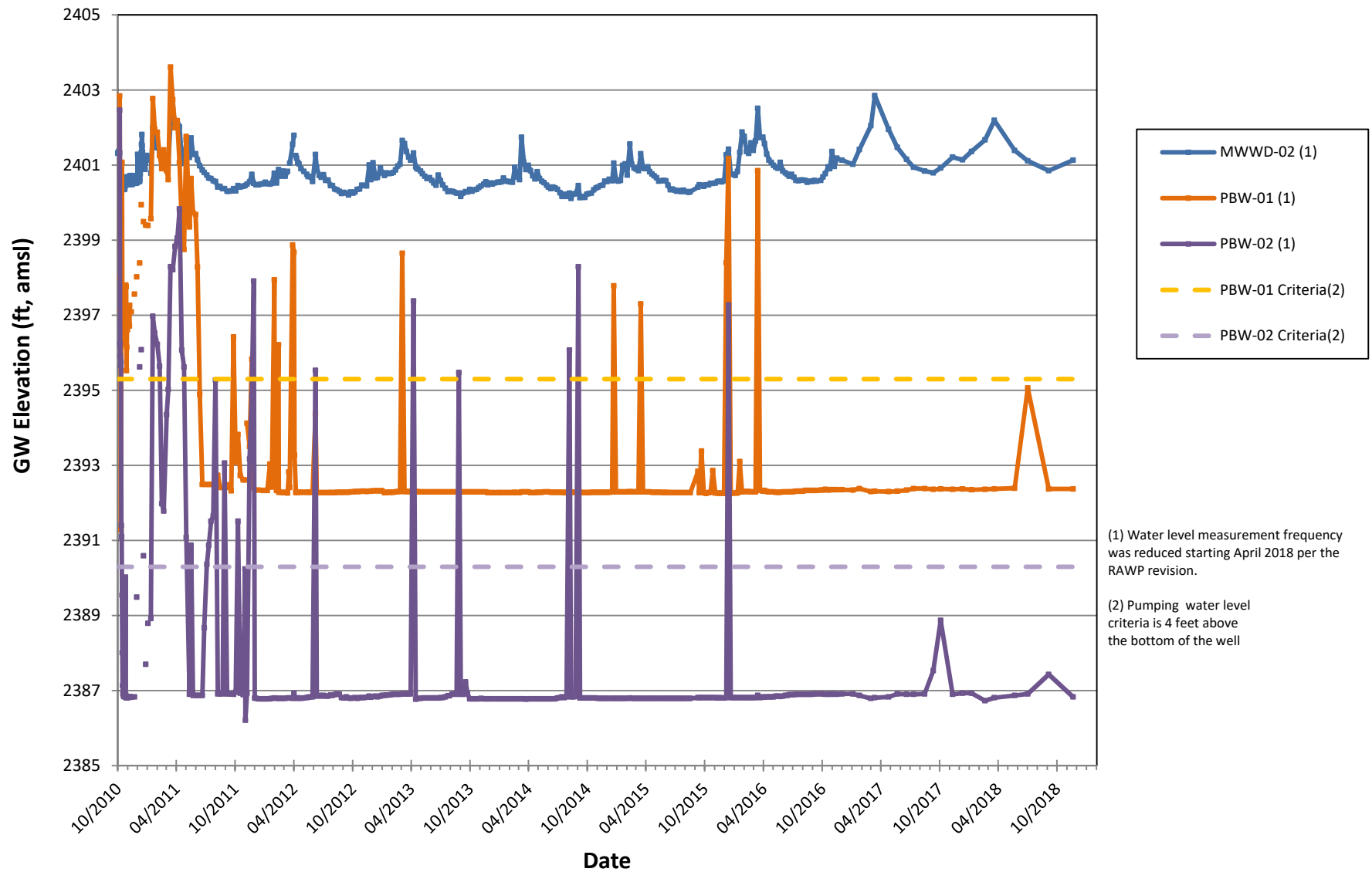
A handwritten signature in black ink, appearing to read "Louis Miller", with a long horizontal stroke extending to the right.

Louis Miller  
Supervising Contractor

cc: Randy Connolly, Spokane Tribe of Indians  
Bill Lyle, Newmont Mining Corporation  
Steve Demus, Jacobs

**ATTACHMENT 1**

**Figure 1**  
**Groundwater Elevations at Western Drainage Wells**



# Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
01/03/12	0.88	0.86	2392.33		2386.78	
01/09/12	0.89	0.84	2392.33		2386.78	
01/17/12	0.85	0.81	2393.03		2386.78	
01/23/12	0.86	0.83	2392.42		2386.79	
01/31/12	0.95	0.87	2397.94	pump replaced 1/30/12	2386.80	
02/07/12	0.87	0.8	2392.33		2386.79	
02/13/12	1.0	0.88	2396.21		2386.79	
02/20/12	0.89	0.84	2392.28		2386.79	
02/27/12	0.93	0.84	2392.27		2386.79	
03/05/12	0.89	0.81	2392.28		2386.79	
03/12/12	0.87	0.84	2392.26		2386.80	
03/16/12	0.98	0.91	2392.82		2386.80	
03/19/12	0.99	0.88	2392.41		2386.80	
03/28/12	1.14	0.95	2398.87		2386.79	
04/01/12	1.35	1.05	2398.67		2386.93	
04/07/12	1.25	0.9	2392.28		2386.80	
04/09/12	1.17	0.88	2392.27		2386.79	
04/13/12	1.0	0.87	2392.28		2386.80	
04/17/12	0.96	0.84	2392.28		2386.80	
04/23/12	0.90	0.83	2392.28		2386.79	
05/02/12	0.91	0.84	2392.28		2386.80	
05/11/12	0.90	0.89	2392.28		2386.81	
05/15/12	0.86	0.88	2392.28		2386.82	
05/21/12	0.87	0.78	2392.28		2386.83	
05/29/12	0.85	0.82	2392.28		2386.83	
06/07/12	1.06	1.16	2394.37		2395.53	
06/11/12	0.92	1.11	2392.27		2386.85	
06/19/12	0.92	0.99	2392.27		2386.87	
06/25/12	0.97	0.96	2392.27		2386.85	
07/02/12	0.96	0.94	2392.27		2386.87	
07/09/12	0.95	0.35	2392.27		2386.85	cleaned flow meter
07/16/12	0.93	0.79	2392.27		2386.85	
07/24/12	0.92	0.81	2392.27		2386.88	
07/30/12	0.95	0.8	2392.27		2386.87	
08/06/12	0.88	0.78	2392.27		2386.89	
08/13/12	0.94	0.75	2392.28		2386.91	
08/20/12	0.8	0.56	2392.28		2386.90	installed new pump
08/27/12	0.88	0.97	2392.28		2386.81	
09/03/12	0.91	0.74	2392.28		2386.80	
09/11/12	0.89	1.01	2392.28		2386.83	
09/18/12	0.9	0.77	2392.28		2386.80	
09/24/12	0.89	0.76	2392.29		2386.79	
10/02/12	0.78	0.71	2392.29		2386.80	
10/08/12	0.8	0.75	2392.30		2386.81	
10/15/12	0.91	0.77	2392.30		2386.79	
10/22/12	0.94	0.8	2392.30		2386.81	
10/29/12	0.92	0.8	2392.31		2386.81	
11/05/12	0.92	0.8	2392.31		2386.81	
11/13/12	0.91	0.82	2392.30		2386.82	
11/21/12	0.97	0.88	2392.31		2386.85	
11/26/12	0.89	0.81	2392.31		2386.82	
12/03/12	0.97	0.89	2392.32		2386.84	
12/11/12	0.94	0.84	2392.32		2386.85	
12/17/12	0.98	0.85	2392.32		2386.83	
12/26/12	0.97	0.91	2392.32		2386.85	
12/31/12	0.94	0.89	2392.32		2386.87	
01/08/13	0.95	0.92	2392.27		2386.87	
01/14/13	0.97	0.93	2392.28		2386.88	
01/21/13	0.97	0.94	2392.28		2386.88	
01/28/13	0.98	0.94	2392.28		2386.89	
02/04/13	0.97	0.96	2392.28		2386.90	
02/11/13	1.00	0.94	2392.29		2386.90	
02/18/13	1.04	0.97	2392.30		2386.90	
02/25/13	1.07	0.98	2392.30		2386.90	
03/04/13	1.29	1.11	2398.65	turned up pump to 24 vdc on 3/4/13; then to 26 vdc on 3/5/13	2386.91	
03/11/13	1.4	1.13	2392.30		2386.91	
03/17/13	1.24	0.81	2392.30		2386.91	
03/24/13	1.08	0.79	2392.30		2386.91	

# Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
03/30/13	1.0	0.78	2392.30		2386.91	
04/08/13	1.07	1.17	2392.31		2397.38	pump not working; replaced
04/15/13	0.94	0.87	2392.29		2386.77	
04/18/13			2392.30			
04/22/13	0.9	0.84	2392.29		2386.79	
04/30/13	0.8	0.84	2392.29		2386.79	
05/06/13	0.81	0.83	2392.29		2386.80	
05/13/13	0.86	0.87	2392.29		2386.80	
05/20/13	0.85	0.82	2392.29		2386.80	
05/28/13	0.83	0.81	2392.29		2386.80	
06/04/13	0.81	0.8	2392.29		2386.80	
06/10/13	0.82	0.78	2392.29		2386.80	
06/17/13	0.82	0.78	2392.29		2386.80	
06/24/13	0.81	0.81	2392.29		2386.80	
07/01/13	0.82	0.76	2392.29		2386.81	
07/08/13	0.83	0.76	2392.29		2386.81	
07/16/13	0.84	0.72	2392.29		2386.83	
07/24/13	0.83	0.64	2392.29		2386.86	
07/29/13	0.83	0.62	2392.29		2386.86	
08/06/13	0.72	0.63	2392.29		2386.90	
08/12/13	0.75	0.76	2392.29		2386.91	
08/20/13	0.86	0.79	2392.29		2386.90	
08/27/13	0.84	1.04	2392.29		2395.47	recovering after power outage
09/02/13	0.82	0.84	2392.29		2386.90	
09/09/13	0.84	0.87	2392.29		2386.90	
09/17/13	0.85	0.85	2392.29		2387.23	
09/23/13	0.83	0.87	2392.29		2386.91	
09/30/13	0.86	0.92	2392.29		2386.78	
10/07/13	0.85	0.89	2392.29		2386.78	
10/15/13	0.83	0.86	2392.29		2386.78	
10/21/13	0.83	0.84	2392.29		2386.78	
10/28/13	0.8	0.84	2392.29		2386.78	
11/04/13	0.83	0.87	2392.29		2386.79	
11/13/13	0.82	0.80	2392.29		2386.78	
11/19/13	0.83	0.78	2392.29		2386.78	
11/25/13	0.87	0.79	2392.27		2386.78	
12/02/13	0.85	0.80	2392.27		2386.78	
12/09/13	0.87	0.81	2392.27		2386.78	
12/16/13	0.86	0.81	2392.27		2386.78	
12/26/13	0.86	0.82	2392.27		2386.78	
12/30/13	0.86	0.81	2392.27		2386.78	
01/06/14	0.82	0.8	2392.27		2386.78	
01/13/14	0.85	0.81	2392.27		2386.78	
01/21/14	0.84	0.8	2392.27		2386.78	
01/28/14	0.84	0.81	2392.27		2386.78	
02/03/14	0.82	0.8	2392.27		2386.78	
02/10/14	0.83	0.79	2392.27		2386.78	
02/17/14	0.96	0.84	2392.28	cleaned flow meter	2386.78	
02/24/14	0.84	0.97	2392.27		2386.78	cleaned flow meter
03/04/14	0.82	0.76	2392.27		2386.78	
03/10/14	1.12	0.93	2392.29		2386.78	
03/17/14	1.00	0.85	2392.29		2386.78	
03/24/14	0.92	0.86	2392.29		2386.77	
03/31/14	0.93	0.85	2392.29		2386.78	
04/07/14	0.91	0.82	2392.27		2386.78	
04/14/14	0.86	0.78	2392.27		2386.78	
04/21/14	0.86	0.82	2392.27		2386.78	
04/28/14	0.89	0.84	2392.28		2386.78	
05/05/14	0.88	0.80	2392.28		2386.78	
05/12/14	0.82	0.77	2392.28		2386.78	
05/19/14	0.82	0.75	2392.29		2386.78	
05/27/14	0.86	0.76	2392.29		2386.78	
06/02/14	0.84	0.72	2392.29		2386.78	
06/09/14	--	0.71	2392.28	flow meter broken	2386.78	
06/16/14	0.8	0.67	2392.28		2386.78	
06/23/14	0.8	0.74	2392.28		2386.78	
06/30/14	0.81	0.68	2392.28		2386.80	
07/08/14	0.8	0.67	2392.28		2386.81	
07/14/14	0.81	0.67	2392.28		2386.83	

# Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
07/21/14	0.82	0.67	2392.27		2386.81	
07/28/14	0.8	0.62	2392.28		2386.83	
08/06/14	0.84	1.12	2392.28		2396.07	recovering after power outage
08/11/14	0.8	0.79	2392.28		2386.83	
08/18/14	0.82	0.78	2392.28		2386.83	
08/25/14	0.83	0.78	2392.28		2386.84	
09/03/14	0.85	1.23	2392.28		2398.29	pump replaced
09/08/14	0.8	1.12	2392.28		2386.80	cleaned flow meter
09/15/14	0.78	0.89	2392.27		2386.80	
09/22/14	0.79	0.87	2392.27		2386.80	
09/23/14	NM	NM	2392.27		NM	
09/29/14	0.81	0.87	2392.27		2386.80	
10/06/14	0.8	0.83	2392.27		2386.80	
10/13/14	0.78	0.82	2392.28		2386.80	
10/21/14	0.8	0.83	2392.28		2386.80	
10/28/14	0.81	0.85	2392.28		2386.80	
11/03/14	0.79	0.84	2392.28		2386.79	
11/11/14	0.81	0.82	2392.28		2386.79	
11/18/14	0.79	0.79	2392.28		2386.79	
11/24/14	0.79	0.81	2392.28		2386.79	
12/01/14	0.8	0.81	2392.28		2386.79	
12/08/14	0.79	0.8	2392.28		2386.79	
12/17/14	0.79	0.77	2392.29		2386.79	
12/22/14	0.81	0.86	2397.78	turned up pump to 20 vdc to get WL back down	2386.79	
12/29/14	0.8	0.8	2392.29		2386.79	
01/05/15	0.8	0.8	2392.29		2386.79	
01/12/15	0.78	0.77	2392.29		2386.79	
01/19/15	0.86	0.78	2392.29		2386.79	
01/26/15	0.86	0.78	2392.29		2386.79	
02/02/15	0.81	0.74	2392.29		2386.79	
02/10/15	1.09	0.89	2392.30		2386.80	
02/17/15	0.95	0.77	2392.29		2386.79	
02/23/15	0.9	0.75	2392.29		2386.79	
03/02/15	0.88	0.71	2392.29		2386.79	
03/09/15	0.86	0.74	2392.29		2386.79	
03/16/15	1.01	0.79	2397.30		2386.79	
03/23/15	0.9	0.74	2392.29		2386.79	
03/29/15	0.89	0.71	2392.29		2386.79	
04/07/15	0.88	0.73	2392.29		2386.79	
04/13/15	0.86	0.70	2392.29		2386.79	
04/20/15	0.85	0.69	2392.28		2386.79	
04/27/15	0.83	0.67	2392.28		2386.79	
05/04/15	0.83	0.64	2392.28		2386.79	
05/11/15	0.81	0.58	2392.28		2386.79	
05/18/15	0.81	0.62	2392.28		2386.79	
05/26/15	0.82	0.6	2392.27		2386.79	
06/02/15	0.83	0.59	2392.28		2386.79	
06/09/15	0.81	0.58	2392.27		2386.79	
06/16/15	0.80	0.59	2392.27		2386.79	
06/22/15	0.80	0.53	2392.27		2386.79	
06/30/15	0.80	0.52	2392.27		2386.79	
07/06/15	0.79	0.54	2392.27		2386.79	
07/14/15	0.79	0.57	2392.27		2386.79	
07/20/15	0.78	0.58	2392.27		2386.79	
07/27/15	0.78	0.59	2392.27		2386.79	
08/03/15	0.77	0.57	2392.27		2386.79	
08/12/15	0.76	0.56	2392.27		2386.79	
8/17/15*	0.76	0.54	2392.27		2386.79	
09/10/15	0.75	0.58	2392.84		2386.81	
09/14/15	0.75	0.58	2392.27		2386.81	
09/21/15	0.76	0.55	2393.38		2386.81	
09/28/15	0.75	0.61	2392.27		2386.81	
10/05/15	0.80	0.59	2392.25		2386.81	
10/13/15	0.78	0.6	2392.27		2386.81	
10/19/15	0.81	0.77	2392.28		2386.81	
10/26/15	0.81	0.75	2392.86		2386.81	
11/03/15	0.82	0.86	2392.26		2386.81	
11/10/15	0.82	0.80	2392.26		2386.80	

# Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
11/16/15	0.82	0.76	2392.25		2386.81	
11/23/15	0.83	0.82	2392.26		2386.80	
11/30/15	0.82	0.79	2392.25		2386.80	
12/07/15	0.89	0.84	2398.40	turned up pump to 20 vdc to get WL back down	2386.81	
12/14/15	1.15	1.04	2401.17	pump 22 vdc	2397.27	circuit breaker feeding pump back well pumps tripped out; fixed problem and reset breaker
12/21/15	0.88	0.78	2392.25		2386.81	
12/28/15	0.86	0.79	2392.26		2386.81	
01/04/16	0.87	0.72	2392.26		2386.81	
01/11/16	0.86	0.72	2392.26		2386.81	
01/18/16	1.00	0.82	2393.10		2386.81	
01/25/16	1.46	0.91	2392.29		2386.81	
02/01/16	1.44	0.88	2392.30		2386.81	
02/08/16	1.10	0.8	2392.30		2386.81	
02/15/16	1.06	0.77	2392.30		2386.81	
02/22/16	1.27	0.8	2392.29		2386.81	
02/29/16	1.22	0.75	2392.29		2386.81	
03/07/16	1.24	0.78	2392.29		2386.81	
03/14/16	1.73	0.92	2400.85	turned up pump to 32 vdc to get WL back down	2386.87	
03/21/16	1.52	0.81	2392.33	pump 30 vdc	2386.81	
03/30/16	1.58	0.8	2392.31		2386.83	
04/04/16	1.60	0.76	2392.33		2386.82	
04/11/16	1.23	0.71	2392.30		2386.83	
04/18/16	1.09	0.63	2392.29		2386.83	
04/25/16	1.02	0.61	2392.29		2386.83	
05/02/16	0.95	0.58	2392.29		2386.83	
05/09/16	0.86	0.54	2392.28		2386.85	
05/16/16	0.83	0.56	2392.28		2386.85	
05/23/16	0.94	0.55	2392.28		2386.84	
05/31/16	0.82	0.52	2392.29		2386.85	
06/08/16	0.78	0.51	2392.29		2386.87	
06/14/16	0.75	0.51	2392.29		2386.87	
06/20/16	0.68	0.50	2392.29		2386.89	
06/27/16	0.73	0.49	2392.29		2386.89	
07/05/16	0.62	0.49	2392.30		2386.89	
07/11/16	0.70	0.52	2392.31		2386.90	
07/19/16	0.77	0.51	2392.31		2386.90	
07/25/16	0.70	0.51	2392.31		2386.90	
08/01/16	0.76	0.53	2392.31		2386.90	
08/08/16	0.73	0.49	2392.33		2386.90	
08/15/16	0.72	0.53	2392.33		2386.90	
08/23/16	0.70	0.51	2392.33		2386.90	
08/30/16	0.73	0.49	2392.33		2386.90	
09/06/16	0.73	0.48	2392.33		2386.91	
09/13/16	0.76	0.48	2392.33		2386.91	
09/26/16	0.74	0.45	2392.34		2386.91	
10/03/16	0.77	0.42	2392.34		2386.91	
10/10/16	0.77	0.41	2392.36		2386.90	
10/19/16	0.78	0.38	2392.34		2386.90	
10/24/16	0.83	0.34	2392.35		2386.91	
10/31/16	1.02	0.53	2392.35		2386.90	
11/07/16	0.90	0.49	2392.35		2386.91	
11/15/16	0.90	0.51	2392.35		2386.90	
12/01/16	0.92	0.51	2392.35		2386.91	
01/04/17	NM	NM	2392.34		2386.91	
01/06/17	0.82	0.48	NM		NM	
01/10/17	0.82	0.69	NM		NM	
01/16/17	0.83	0.58	NM		NM	
01/23/17	1.03	0.57	NM		NM	
01/24/17	NM	NM	2392.38		2386.87	
01/30/17	0.84	0.48	NM		NM	
02/07/17	0.83	0.49	NM		NM	
02/13/17	0.88	0.59	NM		NM	
02/22/17	1.32	0.79	NM		NM	
03/01/17	1.08	0.69	2392.30		2386.79	



# Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
03/06/17	1.04	0.70	NM		NM	
03/13/17	1.52	0.76	2392.31		2386.81	
03/20/17	1.28	0.76	NM		NM	
03/29/17	1.56	0.80	NM		NM	
04/04/17	1.08	0.74	NM		NM	
04/10/17	0.96	0.70	NM		NM	
04/17/17	1.32	0.76	NM		NM	
04/24/17	1.04	0.72	2392.30		2386.83	
05/01/17	0.72	0.74	NM		NM	
05/08/17	0.75	0.62	NM		NM	
05/15/17	0.73	0.50	NM		NM	
05/22/17	0.68	0.64	2392.31		2386.91	
05/30/17	0.61	0.54	NM		NM	
06/05/17	0.62	0.52	NM		NM	
06/12/17	0.54	0.52	NM		NM	
06/19/17	0.68	0.59	NM		NM	
06/20/17	NM	NM	2392.34		2386.90	
06/27/17	0.59	0.44	NM		NM	
07/05/17	0.46	0.50	NM		NM	
07/10/17	0.58	0.54	NM		NM	
07/12/17	NM	NM	2392.38		2386.90	
07/17/17	0.52	0.48	NM		NM	
07/25/17	0.48	0.44	NM		NM	
07/31/17	0.52	0.32	NM		NM	
08/07/17	0.62	0.47	NM		NM	
08/14/17	0.30	0.37	NM		NM	
08/15/17	NM	NM	2392.38		2386.91	
08/21/17	0.40	0.37	NM		NM	
08/28/17	0.56	0.32	NM		NM	
09/05/17	0.46	0.44	NM		NM	
09/11/17	0.40	0.35	2392.36		2387.53	
09/19/17	0.64	0.52	NM		NM	
09/25/17	0.43	0.48	NM		NM	
10/02/17	0.45	0.46	NM		NM	
10/04/17	NM	NM	2392.37		2388.87	
10/11/17	0.43	0.52	NM		NM	
10/16/17	0.38	0.42	NM		NM	
10/23/17	0.46	0.62	NM		NM	
10/30/17	0.45	0.45	NM		NM	
11/07/17	0.47	0.43	NM		NM	
11/10/17	NM	NM	2392.36		2386.90	
11/13/17	0.47	0.40	NM		NM	
11/20/17	0.49	0.57	NM		NM	
11/27/17	0.50	0.47	NM		NM	
12/04/17	0.50	0.57	NM		NM	
12/11/17	0.49	0.42	2392.37		2386.93	
12/18/17	0.54	0.44	NM		NM	
12/27/17	0.52	0.44	NM		NM	
01/03/18	0.52	0.32	NM		NM	
01/08/18	0.54	0.40	2392.35		2386.93	
01/15/18	0.57	0.40	NM		NM	
01/21/18	0.60	0.30	NM		NM	
01/28/18	0.68	0.79	NM		NM	
02/04/18	0.7	0.64	NM		NM	
02/11/18	0.67	0.59	NM		NM	
02/18/18	0.6	0.57	NM		NM	
02/19/18	NM	NM	2392.36		2386.73	
02/25/18	0.58	0.54	NM		NM	
03/04/18	0.60	0.65	NM		NM	
03/12/18	0.71	0.67	NM		NM	
03/18/18	0.74	0.60	NM		NM	
03/20/18	NM	NM	2392.37		2386.81	
03/25/18	0.72	0.57	NM		NM	
04/02/18	0.68	0.52	NM		NM	
04/08/18	0.67	0.47	NM		NM	
04/15/18	0.73	0.50	NM		NM	
04/23/18	0.71	0.48	NM		NM	
04/30/18	0.65	0.43	NM		NM	
05/08/18	0.54	0.46	NM		NM	

## Western Drainage Alluvial Wells

Date	Pumping Rates PBW-01 (gpm)	Pumping Rates PBW-02 (gpm)	Water Levels <sup>1</sup> PBW-01 (ft amsl)	PBW-01 Notes	Water Levels <sup>1</sup> PBW-02 (ft amsl)	PBW-02 Notes
05/14/18	0.57	0.20	NM		NM	
05/22/18	0.58	0.34	2392.39		2386.87	
05/29/18	0.56	0.34	NM		NM	
06/04/18	0.54	0.45	NM		NM	
06/12/18	0.53	0.45	NM		NM	
06/18/18	0.47	0.49	NM		NM	
06/25/18	0.47	0.36	NM		NM	
07/02/18	0.52	0.34	2395.06		2386.91	
07/09/18	0.42	0.37	NM		NM	
07/16/18	0.39	0.24	NM		NM	
07/23/18	0.40	0.22	NM		NM	
07/30/18	0.40	0.52	NM		NM	
08/08/18	0.50	0.31	NM		NM	
08/13/18	0.40	0.29	NM		NM	
08/21/18	0.42	0.30	NM		NM	
08/27/18	0.42	0.29	NM		NM	
09/04/18	0.44	0.30	NM		NM	
09/05/18	NM	NM	2392.37		2387.43	
09/10/18	0.52	0.58	NM		NM	
09/17/18	0.42	0.48	NM		NM	
09/24/18	0.44	0.27	NM		NM	
10/02/18	0.46	0.29	NM		NM	
10/08/18	0.42	0.36	NM		NM	
10/15/18	0.46	0.36	NM		NM	
10/22/18	0.62	0.56	NM		NM	
10/29/18	0.51	0.52	NM		NM	
11/05/18	0.48	0.46	NM		NM	
11/12/18	0.47	0.38	NM		NM	
11/19/18	0.52	0.28	NM		NM	
11/20/18	NM	NM	2392.37		2386.83	
11/26/18	0.54	0.36	NM		NM	
12/03/18	0.52	0.28	NM		NM	
12/10/18	0.52	0.2	NM		NM	
12/19/18	0.54	0.14	NM		NM	
12/26/18	0.56	0.72	NM		NM	
12/31/18	0.6	0.34	NM		NM	
01/07/19	0.57	0.3	NM		NM	
01/14/19	0.52	0.36	NM		NM	
01/21/19	0.52	0.38	NM		NM	
01/28/19	0.45	0.36	NM		NM	

<sup>1</sup> Pumping criteria water level is four feet above the bottom of the well

PBW-01 Criteria = 2395.34

PBW-02 Criteria = 2390.25

\* Late August/early Sept 2015 measurements not taken due site closure from fire conditions

NM = not measured on that date

## **ATTACHMENT 2**

## Monthly Weather Summary for Midnite Mine

January 2019

Day of Month	Max Solar Rad (W/m <sup>2</sup> )	Wind			Air Temperature			Relative Humidity			Precip. (in)
		Ave. (mph)	Ave Dir. (deg)	Max (mph)	Ave. (°F)	Max (°F)	Min (°F)	Ave. (%)	Max (%)	Min (%)	
1/1/2019	111	1.2	159	2.1	26	29	24	80	86	72	0.00
1/2/2019	141	2.1	60	3.1	28	32	23	72	85	64	0.00
1/3/2019	28	2.2	130	3.5	36	39	32	75	91	64	0.05
1/4/2019	264	2.4	163	5.2	38	42	35	74	89	58	0.00
1/5/2019	175	3.5	64	4.7	40	43	35	63	72	59	0.00
1/6/2019	231	3.2	220	5.7	36	41	31	78	95	65	0.10
1/7/2019	320	3.2	259	8.5	31	37	28	77	97	47	0.05
1/8/2019	126	4.4	77	7.4	28	31	24	74	94	54	0.05
1/9/2019	64	1.2	71	3.8	34	38	31	96	98	91	0.50
1/10/2019	81	1.2	137	3.2	35	38	33	96	98	90	0.03
1/11/2019	315	1.6	94	4.0	36	45	30	87	98	67	0.00
1/12/2019	321	0.4	63	2.2	29	37	25	94	96	83	0.01
1/13/2019	122	0.0	0	0.0	25	29	22	94	95	93	0.00
1/14/2019	102	0.0	0	0.0	23	27	17	93	94	90	0.00
1/15/2019	308	0.2	22	2.3	23	32	17	87	91	79	0.00
1/16/2019	226	1.1	63	3.3	30	38	24	80	91	67	0.00
1/17/2019	77	3.1	94	6.7	34	37	32	88	98	65	0.26
1/18/2019	88	1.2	58	4.0	33	36	32	96	98	85	0.03
1/19/2019	79	2.2	181	4.1	34	36	32	97	98	92	0.20
1/20/2019	111	1.9	145	3.7	33	36	30	90	98	72	0.00
1/21/2019	359	1.9	175	5.8	31	39	26	74	93	49	0.00
1/22/2019	46	0.0	0	0.0	29	31	25	93	97	89	0.00
1/23/2019	239	0.7	138	2.2	33	42	29	92	98	76	0.17
1/24/2019	319	0.2	56	1.7	26	34	21	91	95	82	0.00
1/25/2019	196	0.4	61	2.7	30	33	28	95	97	90	0.00
1/26/2019	195	0.3	32	1.9	31	36	28	96	98	89	0.00
1/27/2019	218	0.5	109	3.3	30	35	28	93	97	52	0.00
1/28/2019	412	0.7	118	2.7	31	38	25	73	82	61	0.00
1/29/2019	405	1.2	157	3.5	29	38	22	79	93	62	0.08
1/30/2019	173	0.9	176	2.8	23	26	17	90	95	81	0.00
1/31/2019	144	0.9	87	1.7	29	34	24	85	93	77	0.00

### MONTHLY STATISTICS

Total											1.53
Ave.	193	1.4	102	3.4	31	36	27	86	94	73	
Max	412	4.4	259	8.5	40	45	35	97	98	93	
Min	28	0.0	0	0.0	23	26	17	63	72	47	